

Daniel B. Ward

Department of Botany, Agricultural Experiment Station
University of Florida, Gainesville, Fla.

ABSTRACT: An amplified key is presented to the 4 species of *Aletris* (Liliaceae) recognized for Florida. *Aletris aurea* is seen to occur only in the Florida Panhandle, *A. obovata* in the eastern Panhandle and northern Peninsula, *A. bracteata* in extreme southern Florida, and *A. lutea* throughout. *Aletris farinosa* is treated as distinct, and is excluded. The authorship of *A. obovata* is determined to be Nash ex Small.

Plants of *Aletris* are among the more conspicuous and appealing members of the associations in which they occur, and are often collected. The many resulting specimens probably reflect the distribution of the species with considerable fidelity. As the following key implies, the four Florida species are readily separated by the use of appropriately selected characters. Yet a significant number of *Aletris* specimens have been found to be misidentified, and often a species is assigned a distribution well outside its true range. The presence of hybrids between *A. lutea* and *A. obovata*, which have been well documented by Sullivan (Brittonia 25:294-303. 1973), is undoubtedly a factor, as is the possible presence of white-flowered specimens of *A. lutea* which simulate the more northern *A. farinosa*. But one must speculate that a major cause of the poor understanding of this genus is simply the key provided by the dominant guide to plants of the Southeast, that of J. K. Small (Manual of the Southeastern Flora, 1933).

Small chose to put initial emphasis in his key on two factors, shape of the perianth and degree of adnation of the filaments. The first of these was deceptively phrased, for the obovoid shape of the perianth of *A. obovata* is not particularly marked, at least in contrast with *A. aurea*, and changes with age to ovoid or pyriform with shrinkage of the upper portion and distension of the lower portion by the expanding capsule, as do all species of the genus. Filament adnation is even less satisfactory, for the lesser adnation imputed to *A. obovata* appears not to be so, or at least cannot readily be discerned. Discoloration of the perianth with age, either in the field or after collection, can obscure the yellow color that is so useful a diagnostic character. Whether the capsule is "short-beaked," "abruptly-beaked," "gradually-beaked," or "long-beaked," although the character does differ among the species, is difficult to ascertain with non-fruiting specimens or in the absence of comparative materials.

¹ This paper is Florida Agricultural Experiment Station Journal Series No. 805.

In northern Florida, and indeed to a lesser extent throughout the state, a proportion of collections was found to be identified as *Aletris farinosa* L. This species is usually reported as having a range that extends southward into Florida (Nash, *Torreya* 3:101-102. 1903; Small, 1933; Fernald, Gray's Manual, 1950; etc.). Yet no plants from Florida so labeled have been found to be of this species. Prior to the recognition of *A. obovata* in 1903, white-flowered plants from northern Florida were routinely identified as *A. farinosa*. Occasional collections of *A. lutea* -- again, mostly collected before that species was recognized in 1899 -- have passed as *A. farinosa*, a misidentification perhaps easier to make once the specimens have aged and the distinctive yellow color has faded. And Browne (*Rhodora* 63:304-305. 1961) has described and named a white-flowered form of *A. lutea* (f. *albiflora* E. T. Browne) that closely simulates *A. farinosa* (being best distinguished, apparently, by the absence of the typical *A. farinosa* semi-epigyny); this form has not been specifically identified in Florida, but if present, may assist in accounting for collections from this state named *A. farinosa*. In the absence of unequivocal Florida specimens of *A. farinosa*, the species is best omitted from the state's flora.

The relationship of *Aletris farinosa* to *A. bracteata* Northrop is very close. This latter species is known only from Andros (where first discovered), Abaco, and southern Florida (southern Dade County and Big Pine Key, Monroe County). Mrs. A. R. Northrop (Mem. *Torrey Bot Club* 12:27-28. 1902) originally separated her new species from *A. farinosa* on the basis of "grayish-green longer and narrower leaves, with a more rigid apex, the longer bracts and the broadly flattened style." Small (1933) saw it as separated by a less granular perianth and a more conic capsule-body. Yet without the guidance to identification that is provided by the disjunct ranges, *A. bracteata* and *A. farinosa* would inevitably be separated with uncertainty.

A minor point concerns the authorship of *Aletris obovata*. This species is usually attributed to George V. Nash who in a 1903 paper in *Torreya* (3(7):101-102) published a detailed account of his discovery, with J. K. Small, of this species in pine lands in the vicinity of Jacksonville, Florida. Nash's description was full and unmistakable. The following issue of *Torreya* (no. 8) recorded the date of publication of the previous number as July 25, 1903.

Small's *Flora of the Southeastern United States*, ed. 1, contained a brief five-line description of *Aletris obovata* (p. 286), suggesting by many of its measurements and phrases that it had been derived (with modifications) from Nash's longer text. It was credited by Small wholly to Nash; the appendix to the *Flora*, where Small's new species and combinations were listed, did not contain mention of this *Aletris*.

Small's Flora contained his preface dated July 22, 1903. The imminent publication of this massive work was announced in Torreya 3(7), and a review was provided in the next issue, 3(8), with the date of publication cited as July 22, 1903. Barnhart's authoritative Bibliography of John Kunkel Small (1935) dated the Flora as July 22, 1903. Stafleu's Taxonomic Literature (1967) noted that copies were received at Kew in September, 1903, and at the British Museum in October, but that Small in a letter to Hitchcock in the US copy, stated that his book was actually available on the date of the preface.

There seems to be no question that Small intended the publication of Aletris obovata to be attributed to Nash. Yet there appears no room to dispute that by the caprice of the printer's devil, Small's work antedated that of Nash by three days. Since full citation of authorship, as A. obovata Nash ex Small, retains the names of both men responsible for the discovery of this plant, there appears to be no consequential reason for regret that the International Code in this instance is such an impersonal and inflexible arbiter of proper nomenclatural usage.

ALETRIS L.

Colic-roots

1. Flowers narrowly cylindrical in anthesis, the length 2.5 times or more the width; sepal and petal tips spreading.
2. Perianth yellow, 7 - 9 mm. long; rosette many-leaved, yellow-green; at least some leaves to 9 cm. long; perennial scapose herb; frequent in wet soil of low pine flatwoods, savannahs, and roadside ditches; throughout Florida (except (1) the Florida Keys, where replaced by A. bracteata, (2) between the Suwannee and Aucilla Rivers, and (3) perhaps Okaloosa County westward). [A white-flowered form (f. albiflora E. T. Browne) has been collected elsewhere (Georgia) and is to be expected with the species in northern Florida. Frequent hybrids are to be found where this species grows near A. obovata; these usually have a perianth cream in color and intermediate in shape between that of the two parents. They have been designated A. X totteni E. T. Browne.] March - May.
YELLOW COLIC-ROOT. A. lutea Small
2. Perianth white, 6 - 7 mm. long; rosette few-leaved, gray-green; leaves seldom beyond 7 cm. long; perennial scapose herb; local, rocky pineland, southern Dade County and Big Pine Key, Monroe County. March - May. A. bracteata Northrop
1. Flowers broadly cylindrical, campanulate, or obovoid in anthesis, the length 2 times or less the width; sepal and petal tips erect to incurved.

3. Perianth yellow, 5 - 6 mm. long; perianth fully open at apex, the sepal and petal tips erect; rosette small, the leaves to about 5 cm. long; perennial scapose herb; infrequent, low grassy flatwoods and savannahs; central and western panhandle Florida (east to Liberty and Gadsden counties). April - June.

A. aurea Walt.

3. Perianth white, 5.5 - 6.5 mm. long; perianth partially closed at apex by incurving sepal and petal tips; rosette small, the leaves to about 7 cm. long; perennial scapose herb; frequent in moist but usually well drained sandy soils of pine flatwoods, roadbanks, and grassy savannahs; northern peninsular Florida and eastern panhandle (west to Liberty County, south to Citrus and Flagler counties). [Frequently hybridizing with *A. lutea*, q. v.] May - June (August).

WHITE COLIC-ROOT.

A. obovata Nash ex Small

Excluded Species

Aletris farinosa L. Mealy Colic-root. This northern species has frequently been reported for Florida, but specimens so labeled have been found to be either *A. obovata* or *A. lutea*. It closely resembles *A. bracteata* of South Florida but shows a greater degree of perianth - ovary adnation.